AMENDMENTS TO THE CLAIMS:

1. (Currently amended) A method of detecting apoptosis, comprising: preparing a sample without cells ~~from which cells have been removed~~; and ~~detecting~~

quantifying an antigen comprising at least one member selected from the group consisting of ~~at least one of~~ nucleolin and ~~PARP-1~~ full-length poly(ADP-ribose) polymerase (PARP-1) in the sample, to detect apoptosis;

wherein quantifying comprises reacting an antibody with the sample.

2. (Original) The method of claim 1, wherein the sample is blood, serum, plasma, tissue, tissue culture medium or sputum.

3. (Original) The method of claim 1, wherein the ~~detecting~~ quantifying further comprises membrane disruption.

4. (Currently amended) The method of claim 1, wherein the ~~detecting is detecting nucleolin, and the detecting nucleolin comprises detecting a nucleolin binding molecule nucleolin complex~~ antigen comprises nucleolin.

5. (Currently amended) The method of claim 4, wherein the ~~nucleolin binding molecule~~ antibody comprises an anti-nucleolin antibody.

6. (Currently amended) The method of claim 5, wherein the anti-nucleolin antibody is selected from the group consisting of p7-1A4, sc-8031, sc-9893, sc-9892, 4E2 and 3G4B2 antibodies.

7-9. (Canceled)

10. (Currently amended) The method of claim 1, wherein the ~~detecting is detecting PARP-1, and the detecting PARP-1 comprises detecting a PARP-1 binding molecule PARP-I complex~~ antigen comprises PARP-1.

11. (Currently amended) The method of claim 10, wherein the ~~PARP-1 binding molecule~~ antibody comprises an anti-PARP-1 antibody.

12. (Currently amended) The method of claim 11, wherein the anti-PARP-1 antibody is selected from the group consisting of sc-1562, sc-8007, sc-1561, sc-1561-Y and sc-7150 antibodies.

13. (Currently amended) A method of detecting excessive apoptosis in a subject, comprising:

preparing a blood sample from which cells have been removed; and ~~detecting~~

quantifying a reduction in an antigen comprising ~~at least one of~~ nucleolin ~~and PARP-1~~ in the sample, to detect excessive apoptosis;

wherein quantifying comprises reacting an antibody with the blood sample.

14. (Original) The method of claim 13, wherein the subject is suspected of having a disease selected from the group consisting of Acquired Immunodeficiency Syndrome, a neurodegenerative disease, an ischemic injury, an autoimmune disease, a tumor, a cancer, a viral infection, an acute inflammatory condition and sepsis.

15. (Original) The method of claim 13, wherein the subject is suspected of having cancer.

16. (Original) The method of claim 15, wherein the cancer is selected from the group consisting of endocervical adenocarcinoma, prostatic carcinoma, breast cancer, leukemia and non-small cell lung carcinoma.

17-39. (Canceled.)

40. (Original) A method of detecting apoptosis in a cell culture, comprising the method of claim 1.

41. (Currently amended) The method of claim ~~41~~40, wherein the cell culture is grown in a bioreactor.

42. (New) A method of detecting apoptosis, comprising:

preparing a sample comprising apoptotic bodies; and

detecting an antigen comprising at least one member selected from the group consisting of nucleolin and full-length poly(ADP-ribose) polymerase (PARP-1) in the sample, to detect apoptosis;

wherein detecting comprises reacting an antibody with the sample.

43. (New) The method of claim 42, wherein the sample is blood, serum, plasma, tissue, tissue culture medium or sputum.

44. (New) The method of claim 42, wherein the detecting further comprises disrupting the apoptotic bodies.

45. (New) The method of claim 42, wherein the antigen comprises nucleolin.

46. (New) The method of claim 42, wherein the antibody comprises an anti-nucleolin antibody.

47. (New) The method of claim 46, wherein the anti-nucleolin antibody is selected from the group consisting of p7-1A4, sc-8031, sc-9893, sc-9892, 4E2 and 3G4B2 antibodies.

48. (New) The method of claim 42, wherein the antigen comprises PARP-1.

49. (New) The method of claim 42, wherein the antibody comprises an anti-PARP-1 antibody.

50. (New) The method of claim 49, wherein the anti-PARP-1 antibody is selected from the group consisting of sc-1562, sc-8007, sc-1561, sc-1561-Y and sc-7150 antibodies.